

Playing with Strangeness: Principles of Designing Action Scenarios to Promote Creativity in Children

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Abstract

As artists and teachers in a Teacher Training Faculty, we have designed proposals for children that transfer our own experience as creators in the studio to the educational field. In this way, the classroom is configured into a versatile workplace, like the studio, allowing us to carry out and analyse different workshops for children with the aim of promoting creativity. These workshops, which we call 'action scenarios' take as references the different processes of creating materials and toys for children used by twentieth-century western artists. This research reflects on the design and implementation of these scenarios with the aim of identifying a series of principles or parameters that can help pre-school and primary school teachers plan, design and distinguish creative proposals in the visual arts. Four principles are identified: play as a principle of exploration, estrangement as an aesthetic principle, doing as a principle of thinking and cooperation as a principle of possibility. These principles are conceived as a flexible tool to explore and understand creativity in the educational field, especially among education professionals without training in the visual arts.

Keywords

arts education, childhood, creativity, teacher training, workshops

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Introduction

From a humanistic paradigm, the value of creativity in arts education is based on the right of each individual to creative self-expression and the development of a personal aesthetic experience. (Zimmerman 2013, 2015; Katz-Buonincontro 2015). Lowenfeld & Brittain (1987) believed that children are creative and therefore do not need to be motivated to engage in creative behaviour. However, they argued that creativity must be supported by an environment that fosters curiosity and children's innate tendency to explore. Hausman *et al.* (2015, p. 73) pointed out that creativity is 'an active response, reaction, or experience in the making of novel forms and ideas that occurs in the context of unforeseen situations and challenges'. These authors believed that, although it cannot be taught, in the field of visual arts it is possible to investigate creativity by constructing surroundings for personal and creative acts to occur.

As professionals associated with the field of design and visual arts and professors at the Teacher Training College of Lugo (University of Santiago de Compostela, Spain), we have designed and carried out numerous workshops for children, which we group under the term 'action scenarios' with the aim of promoting creativity. These scenarios connect the educational field with our own experience as creators in the studio and have as references numerous materials and workshops for children made by western artists and educators of the twentieth century such as Bruno Munari, Victor D'Amico, Simon Nicholson or Palle Nielsen. The objective of this research is to identify a series of principles or parameters that can help teachers to plan or distinguish creative proposals in the field of visual arts education. To achieve this, we begin with the analysis and observation of workshops in two different contexts: those designed by us, incorporating our experience as visual artists, and carried out with children from local schools, and those designed by students from the faculty of teacher training. Establishing a comparison between these two contexts enables us to define certain design principles that help us to initiate a methodological change.

We aim to create a framework of mutual collaboration between teachers and artists to develop learning environments that foster creative expression and transform educational practice (París & Hay 2020; Hay 2022; Santos *et al.* 2023). In this way, we will be able to reexamine attitudes, beliefs and classroom practices often based on inaccurate concepts of what constitutes creativity (Aljughaiman & Mowrer-Reynolds 2005). The challenge we face is to transfer a methodology based on the creative processes of the arts to the field of teaching in the early childhood and primary school stages. In Spain, there are no specialists in visual arts education at the pre-school and primary stages (Royal Decree 1594/2011 of November 4 2011). Consequently, many activities proposed to children reinforce the reproduction of stereotyped and uniform commercial models (Ruiz Gutiérrez 2010; Sumozas 2021). Too often, the arts are in a position far removed from the social realities of education, which is why we want to bring together the two areas with the responsibility of improving and transforming educational practice in the classroom.

Action scenarios for children: from Froebel to Munari

With the concept 'action scenario' we're referring to the design of proposals for children that allow us to situate learning as the continuous interaction between

person and world through conscious and reflexive play with the different mediating elements (Winnicott 1993; Ranci ere 2011). As Kent & Steward (2019) point out, ‘creating involves relating’ (p. 17). Making connections through aesthetic perception and playful experience allows us to structure, organise and analyse the environment in which we perform our daily actions. The following is a selection of artistic and educational references in which the design of these three aspects plays a decisive role in the configuration of the learning environment.

In the West, one of the first proposals for developing children’s creativity through the design of specific tools was the Spielgaben or Playgifts designed by Frederick Froebel (1782–1852), which were widely disseminated in the Kindergarten movement. Froebel believed that creativity and perception in childhood should be cultivated through beautiful objects. Creative learning in children develops from open-ended investigations, from manual exploration with forms, materials and processes (Weida 2015).

The methods developed by Froebel had great influence beyond Kindergarten. Joan Itten, one of the most iconic Bauhaus teachers, had previously been a kindergarten teacher and applied the methods developed by Froebel in his classes. His courses were based on learning through play, understood as a continuous process of exploration and transformation, as a way of returning to childhood to create a new visual language applied to design (Kinchin 2019). This research on the design of toys to educate children in a creative way has received renewed interest and recognition, as shown by the exhibitions organised in recent years, among which we can highlight the following: *Century of the Child: Growing by Design*, MoMA, New York, 2012; *Century of the Child: Nordic Design for Children, 1900 to Today*, Vandalorum Museum, V arnamo, Sweden, 2014; Designmuseum Danmark, Copenhagen, 2015; and Design Museum, Helsinki, 2016; *Giro Giro Tondo*, Triennale Design Museum, Milan, 2017; and *El juego del arte: pedagog as, arte y dise o*, Fundaci n Juan March, Madrid, 2019.

An example of environments designed to foster experimentation and encourage children to make creative choices were the workshops conducted by Victor D amico, founding Director of the Department of Education of the MoMA in New York from 1942 to 1969. His workshops aimed ‘to free the child of his clich es or imitative mannerisms and to help him discover his own way of seeing and expressing’ (D’Amico 1960, p. 15). With the exception of teachers, adults were not allowed to attend the sessions. The workshops were aimed at children between the ages of 3 and 12 and lasted an hour and a half, divided into two parts. In the first half, children interacted with a series of motivational toys, which brought them into contact with the elements of design (shape, colour, texture, drawing, rhythm) that became instruments of their activity and imagination. (D’Amico 1960). In the second part of the workshop, participants were given access to a studio with a variety of media and materials at their disposal, encouraging individual expression and exploration. D’Amico emphasised the importance of the role of the teacher, sensitive to the needs of their students and able to create an open environment that motivates and informs.

In 1968, the Moderna Museet in Stockholm opened the exhibition *Modellen: En modell f or ett kvalitativt samh alle*, (Model: A Model for a Qualitative Society), organised by the Danish artist and activist Palle Nielsen, specialised in the design of playgrounds. *Modellen* was a large playground for children only (without parents or educators) with wooden hanging structures, a foam pool, swings and climbing ropes. In addition, there were construction materials and tools, costumes

and musical equipment for the children to make their own compositions. The installation made reference to alternative spaces (such as communes) to question and break established institutional and commercial conventions and authoritarian structures, with the aim of rethinking childhood as a collective responsibility (Bang Larsen 2010). Although the exhibition was a success with the public and the images, to this day, still convey great energy, the experience was never repeated. Modellen, wanted to give children space and time to experiment through play and, in this way, to think and transform society from collective creation, towards what Palle Nielsen called a 'qualitative model of society'. In the opening statement of the exhibition catalogue, Nielsen writes: 'Perhaps it will be the model for the society children want. Perhaps children can tell us so much about their own world that this can also be a model for us. We hope so' (Bang Larsen 2010, p. 71).

In 1971, the streets of the Traiano neighbourhood in the city of Naples became an action scenario for children. Riccardo Dalisi, an Italian architect, artist, designer and teacher, designed a kindergarten in the street together with his architecture students and children (future users of the space), promoting a design methodology based on dialogue with children through practice and participation. This experience was the origin of Global Tools (1973–1975), a multidisciplinary experimental programme of design education that worked through a system of laboratories to promote the use of natural materials, techniques and behaviours with the aim of stimulating the development of individual creativity (Palmieri *et al.* 2019). Dalisi considered the creative imagination (which we all have but which is dormant as a result of a widespread exercise of repression) to be an immense reservoir of social wealth (Picchi 2017).

Also in the early 1970s, the painter and sculptor Simon Nicholson advocated for a creative childhood capable of making decisions within his community. To this end, he developed the Theory of Loose Parts as a critique of restrictive materials and environments designed by a minority of experts (engineers, architects, designers, landscapers, etc.) without considering the needs and ways of life of the community in which they are located. This becomes more evident in childhood, with the design of 'finished' materials from an adult perspective, which do not allow for the development of creation, imagination or symbolic play. The loose parts theory is based on the following principle: *In any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kind of variables in it* (Nicholson 1971, p. 6). Involving children in the processes of design and configuration of the spaces they experience through play allows the development of an aesthetic sensibility through symbolic language. As stated by Piaget & Inhelder (1997), play becomes a mediating instrument capable of transforming and adapting reality to personal needs.

In Italy the 1960s, artist Bruno Munari also approached the world of the school developing didactic projects with concepts such as the game boxes (ABC con Fantasia [1960], Carte da gioco [1968], Piú e meno [1970], Metti le foglie [1973] etc.) where learning takes place through play. Munari presented these didactic objects through encounters where he invited families, teachers and children to experiment with the materials and discover how they worked. Munari also designed a series of laboratories in which, through simple actions that invited children to experiment without forcing them to follow imposed rules, he gave them the possibility to explore with multiple variables, outlining what would later be known as the Munari method for didactics. A method that dialogues with all

people 'who want to go beyond, fleeing stereotypes and clichés to find the extraordinary even in the commonplace, so that the didactics of art becomes the art of didactics' (Sperati 2022, p. 120).

The design of action scenarios

Our research with children focuses on the design and implementation of workshops that enable forms of creation through experience and doing. The workshops are designed as participatory productions (Groundwater-Smith *et al.* 2015) positioning children as an active agent engaged in a creative process using visual means such as drawing, building, modelling or visual storytelling. As a reference, they take the theories on creativity developed by artists such as Klee (1925), Papanek (1972), Munari (1977) and Beuys (cited in Buschkühle 2019). All these authors concur in considering creative activity as a form of research and exploration of immediate reality. One theory on creativity that connects our artistic and educational practice focuses on changes in conventionality (Kohlberg 1987). On the contrary 'conventions define culture' (Runco 2007, p. 41); thus, creativity implies originality and the capacity to generate multiple ideas and solutions beyond conventionally accepted models. Creativity is taken as a possibility for discontinuity, 'an act of disobedience, of troubling and fighting against its normativities and the type of lives it implies' (Martins 2023, p. 94). From this perspective, our role as teaching artists in creating these 'action scenarios' is to enable children to develop creative processes while minimising the possibility of reproducing stereotypical responses valued by convention.

Incorporating experiences that blend the creative process, design and inductive learning involves introducing new models of collaborative learning based on the plurality of representational languages and the expressive qualities of form as a mediating element (Eisner 2004). This intersection between artistic methodologies and educational practice begins from the application of various methodological strategies in different contexts. The researcher acquires a long-term commitment to compile diverse approaches of dealing with the same situation in order to establish conclusions strengthened by the multiple ways in which they were achieved (Angrosino 2007; Flick 2014). This entails a certain capacity for generalisation, where the results obtained gradually shape variable approximations that enhance our understanding of the educational process under investigation and ultimately allow us to identify patterns or general premises (Angrosino 2012). To achieve this, we commence with the analysis of several workshops, delving into constructive exploration and qualitative experience (Eisner 2008) through observation and continuous practice. This interpretative perspective (Sullivan 2004) aims to consider the common variants present in the workshops conducted.

Our research is conducted in two different contexts: with pre-school and primary school children and with teacher training students. Firstly, based on our experience as artists, we designed workshops with children in primary and infant schools in our area. These workshops are documented and subsequently presented to our students at the faculty as examples of real practices that serve as references for them to design their own. Secondly, at the teacher training faculty, we encourage trainee students to design a workshop. The subjects of *Visual and Plastic Arts Education* that we teach are aimed at an experiential model of teacher training, incorporating methodologies and creative processes into the design of educational

proposals. Overall, we observe that proposals designed by the students consist of a series of directed activities where the children must follow a set of instructions: cards for word association, image classification, board games with questions, etc. These proposals contain structural tendencies that hinder the participants—the children—from engaging in their own creative expression (Blanco & Cidras 2023). We present them in four groups:

1. Process: Absence of creative processes; most proposals involve reproducing a predetermined outcome.
2. Play: A perspective that views play as a challenge, where children follow a set of guidelines to complete a specific result or goal.
3. Aesthetics: Reproduction of a stereotypical imaginary that imposes itself on the imagination of childhood.
4. Group Dynamics: An individualistic approach to creativity that does not give space or time to shared practices and learning.

These tendencies position the child as a passive subject, dependent on a series of instructions provided by the adult. It is important to note that this approach originates from educational beliefs acquired throughout the education system, which favour the reproduction of knowledge rather than its creation (Blanco & Cidras 2023). Generally, teaching is oriented towards solving and overcoming obstacles; consequently, trainee teachers often replicate this logic by focusing on designing proposals that provide satisfactory solutions to assigned tasks (Almeida *et al.* 2023). In contrast to this logic of the ‘fabrication of the student as a problem solver’ (Martins 2023, p. 90), the aim of this article is to introduce our training students to creative methodologies so that they can design proposals that enable children to position themselves as active agents who develop *within the problem*. To this end, we try to outline principles of workshop design based on creative processes. These principles are intended as a flexible tool for exploring and understanding creativity in education, especially among professionals outside the arts field.

To develop these principles, we analyse workshops conducted by us as artist-teachers with children in recent years. Normally held in the art room of the faculty, these workshops last an hour and involve approximately 25 children per session. About the same number of teacher training students participate as observers, noting the various actions undertaken by the children. From 2014 to 2020, we designed 70 different action scenarios in collaboration with five public schools (Blanco & Cidras 2022).

Analysis of action scenarios

We present four scenarios – We Make Film, Form Drawing, Modular Drawing and Subtractive Drawing – for further analysis.

Action scenario 1: We Make Cinema

In this workshop, the participating children start from a motivating narrative (such as a tale or personal experience) to create their own story. The medium is drawing with crayons on reused acetate sheets, which are then projected with an overhead projector. The acetate sheets function as photograms that, when joined together, become a narrative sequence (Figure 1).



Figure 1
We Make Cinema.

Action scenario 2: Form Drawing

This workshop focuses on construction and utilises easily assembled cardboard pieces. These pieces allow the children to generate immediate three-dimensional elements, providing them with satisfaction and confidence to continue exploring the possibilities offered by the different slotted shapes. Two workshops were conducted, differentiated by the size of the pieces to be assembled: smaller ones measuring around 15–20 cm, and larger ones ranging from 50 to 80 cm. The dynamic in both scenarios remained consistent: starting the process by assembling a piece and gradually allowing the children to explore the possibilities of assembling them. The pieces were also conceived as elements for intervention; once assembled, the children could draw on them with charcoal or chalk to generate new relationships. Additionally, observational drawings of the resulting forms were created based on their personal experiences with the material (Figure 2).

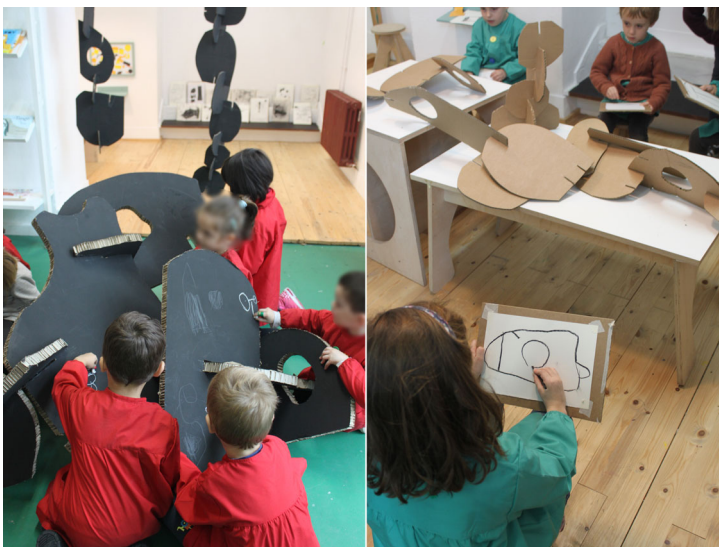


Figure 2
Form Drawing.

Action scenario 3: Modular Drawing

For this proposal, we create a series of cardboard cards designed as a kind of blank canvas so that participants draw on them and, as they are assembled, give way to the observation of shapes, spaces and drawings, and interact with them. The narrative unfolds in a loop of actions involving the cards as they are assembled, combined, removed, discarded and so on (Figure 3).



Figure 3
Modular Drawing.

Action scenario 4: Subtractive Drawing

We provide a support –in this case painted cardboard sheets– that allows us to incorporate the concept of mark-making. This helps children understand that our intervention in the environment leaves marks that often go unnoticed and are irreversible. The workshop begins with an action of the body and an object (an awl) that tears at a material, recording this action (Figure 4).



Figure 4
Subtractive Drawing.

Below, we analyse these in relation to the four tendencies identified in the workshops designed by the students seen in the previous section.

Process

In the four workshops, it is observed that the children engage in diverse productions as a result of discovering the possibilities of the medium and the materials. It is the children's own experience of creating that opens up other processes that were not planned or pre-designed in advance. In Workshop 1, the children discover the translucent mark and explore the possibilities of superimposing lines, blurring, staining and scaling when the drawings are projected. In Workshops 2 and 3, the action of assembling and shaping the form itself provokes a conscious doing that is reflected in decision-making about construction, whether on a spatial and formal level as an aesthetic object or in the creation of narratives around it. In Workshop 4, the action of marking with the awl on a larger cardboard support allows for tearing and perforating. The children create their own processes by experimenting with the material: they insert the awls into the cardboard and let themselves hang from them, they tear off the painted surface layer of the cardboard – initially vertically but later they discover how to create curves – they reinsert the torn pieces back into the holes and so on.

Play

While the trainee students design the workshops as a challenge, where the children follow guidelines until they achieve a result or reach an objective, we observed that in these scenarios, the children experiment and explore through play. This exploration stems from the enjoyment of assembling many pieces into the same shape (Workshops 2 and 3) or engaging in spontaneous actions related to the exploration of the material: marking, blurring, staining, tearing, etc. (Workshops 1 and 4). For most of the children, it was the first time exploring these materials, so these actions were closely linked to experimenting with their qualities.

Aesthetics

The workshops allow the children to discover their imagination without resorting to imposed models. Workshop 1 showcases the diversity of the drawings created. The sequence for making the film also leads to open narratives that are told repeatedly. In Workshops 2, 3 and 4, the unstructured material itself minimises the reproduction of stereotyped models, facilitating spontaneous creative processes that result in a broader and more diverse language of their own. In Workshops 2 and 3, the subsequent grouping of the constructions opens up new possibilities: superimposition of shapes, perspectives and gaps. In Workshop 2, during the phase of observational drawing, multiple ways of observing the object are recorded, incorporating personal experience. Some of these drawings focus on the detail, others on the enjoyment of the contrast between figure and background, while others on recording the form as movement, etc.

Group dynamics

The workshops promote movement and relationships among participants and with the transformed materials. The spatial arrangement of the materials and the actions of joining and assembling facilitate cooperative dynamics: play in groups, collaboration and assistance in creating assemblies and moving shapes, as well as

sharing materials. Although some children build individually, the nature of the material encourages interaction at some point in the process, leading to collective contamination. In Workshop 4, for example, the cardboard plates that function as a spatial installation can remain in the classroom or playground over time as objects of research, allowing for intervention by the entire educational community and enabling observation of how marks grow and contaminate each other. It is important for the processes to have continuity over time because they serve as a kind of diary – a permanent substratum that can be visited at any moment – preventing experiences from being reduced to a single outcome. In this way, learning is constructed over time and through collective engagement. In Workshop 2, the observational drawing phase begins with more conscious individual observation that translates experiences of spatial perception and three-dimensionality onto a two-dimensional plane. However, sharing the drawings provokes reflections that emerge from the diversity of representations.

Results: principles of action scenario design

Below are the four principles that are a constant in the action scenarios we design for children. These principles emerge inductively through observation, review and implementation of the workshops conducted with children based on the four design tendencies detected in the students of the faculty: lack of process, play as a challenge, stereotypes and an individualistic perspective on creativity. We do not present them as a formula or a method, rather as a frame of reference that we consider essential for developing creative processes with children.

Doing as a principle of thinking

Doing is what advances things that are going to happen. Doing serves as diagnosis, in the constant trying of discovering the connections between things (Dewey 2011). In his book *Democracy and Education*, originally published in 1916, Dewey refers to new types of occupations that should be incorporated into conventional schooling and which he defines as ‘active occupations’ (2011, p. 108). These occupations, influenced by the Manual Training Movement, were listed by Dewey in the chapter ‘Play and Work in the Curriculum’: There is work with paper, cardboard, wood, leather, cloth, yarns, clay and sand and metals, with and without tools. Processes employed are folding, cutting, pricking, measuring, modelling, patternmaking, heating and cooling and normal operating of such tools as the hammer, saw and file. Despite efforts to include active activities in the curriculum, these programmes have not been developed in most generalist schools. As Crawford (2009) points out, the twentieth century was characterised by the separation of doing from thinking. This has led to the degradation of manual work, which has been constantly proletarianised, and also of ‘intellectual’ work, which has been increasingly reduced to standardised knowledge, disconnected from any apprehension about its real effects. Far from the old-fashioned image of manual labour, this is a perspective of education to which we must commit ourselves.

Play as a principle of exploration

Play is a tool that allows us to confront and transcend conventions, which is why it is also fundamental in the creative processes of artists. Numerous studies link play with creativity (Bateson & Martin 2013). Kinchin (2019) points out that the

experience of childhood and exploration through play are universal and relates it to the experimentation processes of artists and designers who, like children, look for models and establish connections. Play is an act of resistance, a projection of the inner world that is opposed to learning (Bruner 1984). 'In play we transform the external world according to our desires' (p. 219), incorporating new structures that destabilise established conventions and propose alternatives of representation and interpretation through language and symbolic narrative. The elements that invite play are provocative objects of experiences (Bordes 2016), forms of resistance against single narratives.

Strangeness as an aesthetic principle

The principle of estrangement, in relation to the scenarios we present to children, refers to the capacity of action spaces to generate creative processes, minimising the reproduction of aesthetic models imposed by adult convention. The development of creativity goes hand in hand with aesthetic development. When we create, we activate multiple cognitive and sensory perceptions that are intertwined in the process of creation (Lowenfeld & Brittain 1987). Art has to do with a strictly aesthetic way of thinking (Deleuze & Guattari 1996). Deleuzian aesthetics is interested in the concepts through which art creates new modes of life, altering existing ones. If we understand art as a political and ethical aesthetic process capable of generating new forms of becoming and coexistence (Atkinson 2018), we can understand the importance of developing a semiotic of difference (Atkinson 2002; Atkinson & Dash 2005). This implies that action scenarios are not based on the reproduction of established models or symbols but on the search for meaningful expressive forms for each child. This principle places us in the concept of estrangement, a term coined by the writer Shklovsky (1917) that Loris Malaguzzi (1993) incorporates into the educational world as a principle for unveiling the aesthetics of childhood (Hoyuelos 2012). Estrangement is a way of unfamiliarising the everyday, creating new connections beyond the limits of convention. It refers to two actions: disassociating oneself from the stereotyped images and productions disseminated by the different reproductive agents (school, media, etc.); and building one's own style and imagery outside the pre-established aesthetic and academic canons.

Cooperation as a principle of possibility

Cooperation helps to stimulate the generation of ideas and is common in many creative fields such as design, architecture, art, engineering, etc. The artist Bruno Munari (1977) takes the concept of creativity to the social dimension. A creative person is, above all, a person capable of contributing to the community; the cultural growth of the community depends on what we, as individuals, can give to it. This principle does not imply that all action scenarios are collaborative, but it does open up the possibility of establishing relationships and cooperative dynamics among participants. It serves as a reminder of the importance of connectivity, and if our proposals favour it in some way and at some point (not necessarily among all participants or during the entire action), then we are enhancing an aspect and sense of creativity that we usually forget: its value in the community. And it can also bring new nuances to individual creativity.

Concluding thoughts

As we have been stating throughout the article, our research arises from the need for a real and shared transfer from art to education, centred on the design and implementation of proposals and workshops that serve to reflect on other educational models, based on creation and on their possibility to transform schools and society today.

Reflecting on our artistic experience, we have identified four actions that are always present in the action scenarios we develop with children: making, playing, de-familiarising (strangeness) and collaborating. Transferring them to the educational sphere can help us, as teachers, to design and carry out proposals that emphasise creativity, while identifying those that reinforce the propagation of stereotypes. The title of this research project, 'Playing with Strangeness', refers to the need to create the necessary conditions to value childhood processes beyond adult convention. As professionals we have to support and encourage children's productions that allow them to create and explore outside of stereotypical imitative models and, in this way, discover their own personal forms of expression; to discover ways of thinking about the world they live in and about themselves.

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field of arts, architecture, philosophy and early childhood and primary education whose objectives are to bring to schools methodologies based on the arts and contribute to the design of quality educational spaces and resources in the classroom.

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